Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original) A method for motion vector refinement, comprising:

   (a) providing a target DCT block, a corresponding motion vector estimate, and a reference frame of DCT blocks;

   (b) when a boundary of a first reference DCT block located by said motion vector estimate in said reference frame does not align with a boundary of any of said DCT blocks in said reference frame,

      (i) define a motion vector search window by adjoining DCT coefficients along the boundaries of said first reference DCT block in said reference frame;

      (ii) refine said motion vector estimate by searching over potential motion vectors which locate potential reference DCT blocks within said search window; or

   (c) when a boundary of a first reference DCT block located by said motion vector estimate in said reference frame aligns with a boundary of any of said DCT blocks of said reference frame,

      (i) define a motion vector search window by repeating DCT coefficients of the aligned boundary(es) of said first reference block in said reference frame;

      (ii) refine said motion vector estimate by searching over potential motion vectors which locate potential reference DCT blocks within said search window.

Claim 2 (currently amended) The method of claim 1, wherein ~~:~~

~~(a)~~ in step (c) of claim 1 when first and second boundaries of said first reference DCT block align with boundaries of DCT blocks in said reference frame and when third and fourth boundaries of said first reference DCT block do not align with boundaries of DCT blocks in said reference frame, then said first

reference DCT block has boundary DCT coefficients at said first and second boundaries repeated and DCT coefficients from said reference frame adjoined along said third and fourth boundaries.

Claim 3 (currently amended) The method of claim 1, wherein:

~~(a)~~ (d) said target block is a macroblock including a 2x2 array of 8x8 DCT blocks of discrete cosine transformed luminance prediction errors;

~~(b)~~ (e) said reference frame DCT blocks are 8x8 DCT blocks; and

~~(c)~~ (f) for said step (b) of claim 1 said search window lies within a 3x3 array of said reference frame DCT blocks.